

[process] to limit thickness of sidewall polymer; [and
separate] vacuum chamber means [for] to chemically modify
polymer rails by supplying a mixture of an etching gas and an
acid neutralizing gas [into a vacuum chamber] [in which said
structure is supported] to form a water soluble material of
sidewall polymer rails left behind on the Al/Cu metal line
from the RIE process, [thereby permitting] and rinse chamber
means to remove [removal of] the water soluble material with
deionized water.

14. (Twice Amended) The integrated[ion] metal etch tool
of claim 13 wherein said [separate] strip chamber means for a
water-only plasma [process allows conducting] conducts said
water-only plasma [process] at temperatures between about
175°C-200°C [to limit the thickness of the sidewall polymer].

15. (Twice Amended) The integration metal tool of claim
13 wherein said [separate] strip chamber means for a water-
only plasma [process permits conducting] conducts said water-
only plasma [process] at temperatures greater than 200°C to
form a passivation layer on the Al/Cu metal line surface
[prior to forming a water soluble material of sidewall polymer
rails].

16. (Twice Amended) In a metal etch tool for removing
post-RIE polymer rails formed on a Al/Cu metal line of a
semiconductor structure, the improvement comprising[:]
an integrated metal etch tool comprising therein: vacuum
[separate] chamber means [for supplying] to provide a mixture

of an etching gas and an acid neutralizing gas [into a vacuum chamber in which] to said [composite] structure [is supported] to form a water soluble material of sidewall polymer rails left behind on Al/Cu metal line from the RIE process; [said separate] and strip chamber means [permitting] for removal of photo-resist from said structure by chemical downstream etching or plasma.

17. (a) (Twice Amended) The integrated~~ed~~[ion] metal etch tool of claim 16 wherein said [separate] strip chamber means [permitting removal of photo-resist by chemical down stream etching allows said] conducts chemical down stream etching [to be conducted] at temperatures greater than 200°C to form a passivation layer on the Al/Cu metal line surface.

CORRECTED VERSION OF CLAIMS

13. (Twice Amended) In a metal etch tool for removing post-RIE polymer rails formed on a Al/Cu metal line of a semiconductor structure, the improvement comprising an integrated metal etch tool comprising therein: strip chamber means to strip the photo-resist layer of a semiconductor composite structure with water only plasma subsequent to a RIE to limit thickness of sidewall polymer; vacuum chamber means to chemically modify polymer rails by supplying a mixture of an etching gas and an acid neutralizing gas to form a water soluble material of sidewall polymer rails left behind on the

Al/Cu metal line from the RIE process, and rinse chamber means to remove the water soluble material with deionized water.

14. (Twice Amended) The integrated metal etch tool of claim 13 wherein said strip chamber means for a water-only plasma conducts said water-only plasma at temperatures between about 175°C-200°C.

15. (Twice Amended) The integration metal tool of claim 13 wherein the said strip chamber means for a water-only plasma conducts said water-only plasma at temperatures greater than 200°C to form a passivation layer on the Al/Cu metal line surface.

16. (Twice Amended) In a metal etch tool for removing post-RIE polymer rails formed on a Al/Cu metal line of a semiconductor structure, the improvement comprising an integrated metal etch tool comprising therein: vacuum chamber means to provide a mixture of an etching gas and an acid neutralizing gas to said structure to form a water soluble material of sidewall polymer rails left behind on a Al/Cu metal line from the RIE process; and strip chamber means for removal of photo-resist from said structure by chemical downstream etching or plasma.

17. (Twice Amended) The integrated metal etch tool of claim 16 wherein said strip chamber means conducts chemical downstream etching at temperatures greater than 200°C to form a passivation layer on the Al/Cu metal line surface.